IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: John Delta and Donald Bosic	Art Unit	: 3624
Serial No.	: 09/841,661	Examiner	: Akintola, Olabode
Filed	: April 24, 2001	Conf. No.	: 6435
Title	: EXTENDED HOURS TRADE FILTERING		

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APPEAL BRIEF ON BEHALF OF JOHN DELTA AND DONALD BOSIC

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Real Party In Interest

The real party in interest in the above application is The Nasdaq Stock Market, Inc., a corporation existing by virtue of laws of the State of Delaware.

Related Appeals and Interferences

Appellants are not aware of any appeals or interferences related to the above-identified patent application.

Status of Claims

This is an appeal from the decision of the Primary Examiner in an office action dated October 18, 2007, rejecting claims 1-35, all of the claims in the above application. Claims 36-41 were canceled. This office action was in response to Appellant's appeal brief filed on Jan. 3, 2006 that was an appeal from the decision of the Primary Examiner in an final office action dated October 5, 2006, finally rejecting claims 1-35, all of the claims in the above application.

The examiner elected to re-open prosecution. Appellant has elected to re-instate the Appeal and filed new Notice of Appeal on February 15, 2008.

Claims 1-35 are the claims on Appeal.

Status of Amendments

All amendments have been entered.

Summary of Claimed Subject Matter

Claim 1

One aspect of Appellants' invention is set out in claim 1 as a computer system executing a trade filtering process for identifying suspect trades. "*Referring to FIG. 4, there is shown a processor 300 and memory 302 configured to: monitor 304 a trade price associated with each trade of a specific stock during a trading session; compare 306 the trade price of each trade of a*

specific stock to a known acceptable price for that specific stock to determine which trades are suspect trades; and prevent 308 the processing of the suspect trades."[1]

Inventive features of claim 1 include a trade monitoring process for monitoring a trade price associated with each trade of a specific stock during a trading session. "*Trade filtering process 10 includes a trade monitoring process 21, which monitors the trade volume 18 and trade price 20 of each trade 16 of a specific stock traded during a trading session.*"[2]

Inventive features of claim 1 also include a trade comparison process, responsive to the trade monitoring process, for comparing the trade price of each trade of a specific stock to a known acceptable price for that specific stock to identify which trades are suspect trades. "*A trade comparison process 22 is responsive to trade monitoring process 21. As trade monitoring process 21 monitors the trade price 20 associated with each trade for a specific stock, this trade price 20 is provided to trade comparison process 22 so that a comparison can be made. Trade comparison process 22 compares the trade price 20 of trade 16 to a known acceptable price "K" 24 for that specific stock. This comparison can identify trades that are suspect trades.*"[3]

Inventive features of claim 1 also include a suspect trade filtering process, responsive to the trade comparison process, for preventing the processing of suspect trades. "*Whenever trade comparison process 22 determines a trade is a suspect trade ("S") 28, suspect trade 28 is provided to suspect trade filtering process 30 for processing. Alternatively, any trade which trade comparison process 22 determines to be a non-suspect trade is provided to computerized trading system 14 for processing and posting.*

Suspect trade filtering process 30, which is responsive to trade comparison process 22, prevents (until further analysis can be performed) the processing of those trades which trade comparison process 22 determined were suspect trades. While such suspect trades 28 are not immediately considered bad (or invalid) trades, further processing must be performed before it can be determined if these trades should be processed and posted by computerized trading system 14."[4]

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[1] Specification page 10, lines 13-17.
[2] Id. page 6, lines 4-6.
[3] Id. page 6, lines 9-14.
[4] Id. 6, lines 15-24.

Claim 20

Claim 20 claims another aspect of the invention. Claim 20 is directed to a method of preventing processing of suspect trades, the method executed in a computer system. This feature is supported as the analogous feature of claim 1 and "*Suspect trade filtering process 30, which is responsive to trade comparison process 22, prevents (until further analysis can be performed) the processing of those trades which trade comparison process 22 determined were suspect trades. While such suspect trades 28 are not immediately considered bad (or invalid) trades, further processing must be performed before it can be determined if these trades should be processed and posted by computerized trading system 14.*"[5]

Claim 20 includes the feature of monitoring a trade price associated with each trade of a specific stock during a trading session. This feature finds support as generally set out for claim 1.

Claim 20 also includes the feature of comparing in the computer system the trade price of each trade of a specific stock to a known acceptable price for that specific stock, with the acceptable price being a range of prices that span from a specific amount below to a specific amount above the last known good price, to determine which trades are suspect trades, which have trade prices that fall outside the acceptable range of prices. This feature finds support as generally set out for claim 1 and "*Acceptable price determination process 32 includes a price acceptability window process 40 for determining the known acceptable price 24, where the known acceptable price 24 is actually an acceptable range of prices 42 that span from a specific amount ("x") below last known good price 36 to a specific amount ("x") above last known good price 36.*"[6]

Claim 20 also includes the feature of preventing processing of the suspect trades. This feature finds support as generally set out for claim 1. Claim 20 also includes the feature of determining a last known good price for a specific stock being traded. "*The specific amount ("x") that acceptable range of prices 42 spans above and below last known good price 36 can be*

[5] Specification page 6, lines 19-24.
[6] Id. page 7, lines 4-7.

various values, such as: a fixed dollar amount; or a percentage (e.g., 15%) of the last known good price 36."[7]

Claim 20 also includes the feature of adjusting the last known good price of the specific stock being traded to be equal to the trade price of the last non-suspect trade. "*Acceptable price determination process 32 includes a last known good price adjustment process 44 which adjusts the value of last known good price 36 for the specific stock being traded to be equal to the trade price of the last non-suspect trade. As stated above, if the stock has already been traded in the current trading session, the last known good price 36 is the value that the stock last traded at.*"[8]

Claim 23

Another aspect of the invention is covered by claim 23. Claim 23 is directed to a method for preventing the processing of suspect trades. "*Referring to FIG. 4, there is shown a processor 300 and memory 302 configured to: monitor 304 a trade price associated with each trade of a specific stock during a trading session; compare 306 the trade price of each trade of a specific stock to a known acceptable price for that specific stock to determine which trades are suspect trades; and prevent 308 the processing of the suspect trades.*"[9]

Claim 23 also includes the feature of monitoring a trade price associated with each trade of a specific stock during a trading session. "*Trade filtering process 10 includes a trade monitoring process 21, which monitors the trade volume 18 and trade price 20 of each trade 16 of a specific stock traded during a trading session.*"[10]

Claim 23 also includes the feature of comparing the trade price of each trade of a specific stock to a known acceptable price for that specific stock to determine which trades are suspect trades. "*A trade comparison process 22 is responsive to trade monitoring process 21. As trade monitoring process 21 monitors the trade price 20 associated with each trade for a specific stock, this trade price 20 is provided to trade comparison process 22 so that a comparison can be made. Trade comparison process 22 compares the trade price 20 of trade 16 to a known*

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[7] Specification page 7, lines 11-14.
[8] Id. page 7, lines 14-18.
[9] Id. page 10, lines 13-17.
[10] Id. page 6, lines 4-6.

acceptable price "K" 24 for that specific stock. This comparison can identify trades that are suspect trades."[11]

Claim 23 also includes the feature of preventing the processing of the suspect trades. "*Whenever trade comparison process 22 determines a trade is a suspect trade ("S") 28, suspect trade 28 is provided to suspect trade filtering process 30 for processing. Alternatively, any trade which trade comparison process 22 determines to be a non-suspect trade is provided to computerized trading system 14 for processing and posting.*

Suspect trade filtering process 30, which is responsive to trade comparison process 22, prevents (until further analysis can be performed) the processing of those trades which trade comparison process 22 determined were suspect trades. While such suspect trades 28 are not immediately considered bad (or invalid) trades, further processing must be performed before it can be determined if these trades should be processed and posted by computerized trading system 14."[12]

Claim 30

Claim 30 is directed to a computer program product residing on a computer readable medium having a plurality of instructions. "*Referring to FIG. 3, a computer program product 200 resides on a computer readable medium 202 having a plurality of instructions 204 stored thereon which, when executed by processor 206, cause that processor 206 to monitor 208 a trade price associated with each trade of a specific stock during a trading session. Processor 206 compares 210 the trade price of each trade of a specific stock to a known acceptable price for that specific stock to determine which trades are suspect trades. Processor 206 prevents 212 the processing of the suspect trades.*"[13]

Claim 30 also includes the feature of instructions to monitor a trade price associated with each trade of a specific stock during a trading session. "*Trade filtering process 10 includes a trade monitoring process 21, which monitors the trade volume 18 and trade price 20 of each trade 16 of a specific stock traded during a trading session.*"[14]

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[11] Specification page 6, lines 9-14.
[12] Id. page 6, lines 15-24.
[13] Id. page 10, lines 3-9.
[14] Id. page 6, lines 4-6.

Claim 30 also includes the feature of instructions to compare the trade price of each trade of a specific stock to a known acceptable price for that specific stock to determine which trades are suspect trades. "*A trade comparison process 22 is responsive to trade monitoring process 21. As trade monitoring process 21 monitors the trade price 20 associated with each trade for a specific stock, this trade price 20 is provided to trade comparison process 22 so that a comparison can be made. Trade comparison process 22 compares the trade price 20 of trade 16 to a known acceptable price "K" 24 for that specific stock. This comparison can identify trades that are suspect trades.*"[15]

Claim 30 also includes the feature of instructions to prevent the processing of the suspect trades. "*Whenever trade comparison process 22 determines a trade is a suspect trade ("S") 28, suspect trade 28 is provided to suspect trade filtering process 30 for processing. Alternatively, any trade which trade comparison process 22 determines to be a non-suspect trade is provided to computerized trading system 14 for processing and posting.*

Suspect trade filtering process 30, which is responsive to trade comparison process 22, prevents (until further analysis can be performed) the processing of those trades which trade comparison process 22 determined were suspect trades. While such suspect trades 28 are not immediately considered bad (or invalid) trades, further processing must be performed before it can be determined if these trades should be processed and posted by computerized trading system 14."[16]

Grounds of Rejection to be Reviewed on Appeal

1. Claims 1-19 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as his invention..

2. Claims 1-19 stand rejected under 35 U.S.C. §101 as directed to a non statutory subject matter.

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[15] Specification page 6, lines 9-14
[16] Id. page 6, lines 15-24.

3. Claims 1-4, 12, 23-24, 30-31 and 34 stand rejected under 35 U.S.C. 103(a), as being unpatentable over Vogel et al. (US Patent 6944599) in view of Kirwin et al (US App. 20020029180).

4. Claims 5-11, 13-18, 20, 22, 25-28, 32 and 35 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Vogel et al. (US Patent 6944599) in view of Kirwin and further in view of Sposito (US Patent Application 2001/0042033).

Argument

Indefiniteness

It is not necessary for the claims to recite every element needed for practical utilization of the claimed subject matter in order for a claim to be proper under 35 U.S.C. §112, second paragraph, *Bendix Corp. v. United States*, 600 F.2d 1364, 1369, 204 U.S.P.Q. 617, 621 (Court of Claims, 1979). It is not the role of the claims to enable one skilled in the art to reproduce the invention, but rather to define the legal metes and bounds of the invention. *In re Geoffe*, 526 F.2d 1393, 1397, 188 U.S.P.Q. 131, (CCPA, 1975). The claims need not provide all operating details but a method claim should recite a positive step. *In re Erlich*, 3 U.S.P.Q. 2d 1011 (Bd. Pat. App. & Int., 1986).

Obviousness

"It is well established that the burden is on the PTO to establish a prima facie showing of obviousness, *In re Fritsch*, 972 F.2d. 1260, 23 U.S.P.Q.2d 1780 (C.C.P.A., 1972)."

In *KSR Intl. Co. v. Teleflex Inc.*, 127 S.Ct. 1727 (2007) the Supreme Court reversed a decision by the Court of Appeal's for the Federal Circuit decision that reversed a summary judgment of obviousness on the ground that the district court had not adequately identified a motivation to combine two prior art references. The invention was a combination of a prior art repositionable gas pedal, with prior art electronic (rather than mechanical cable) gas pedal position sensing. The Court first rejected the "rigid" teaching suggestion motivation (TSM) requirement applied by the Federal Circuit, since the Court's obviousness decisions had all

advocated a "flexible" and "functional" approach that cautioned against "granting a patent based on the combination of elements found in the prior art."

With respect to the genesis of the TSM requirement, the Court noted that although "As is clear from cases such as Adams[17], a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known."

In application of the TSM requirement, the Court cautioned that: "Helpful insights, however, need not become rigid and mandatory formulas; and when it is so applied, the TSM test is incompatible with our precedents." To the extent the Fed Cir has been applying a flexible rule recently, that flexible rule was not applied in this case, and the Fed Cir can figure out how to match its actions to this decision.

"The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." *In re Gordon*, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984).

> Although the Commissioner suggests that [the structure in the primary prior art reference] could readily be modified to form the [claimed] structure, "[t]he mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." *In re Laskowski*, 10 U.S.P.Q. 2d 1397, 1398 (Fed. Cir. 1989).

"The claimed invention must be considered as a whole, and the question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of

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[17] United States v. Adams, 383 U. S. 39, 40 (1966)

making the combination." *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick*, 221 U.S.P.Q. 481, 488 (Fed. Cir. 1984).

> Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under Section 103, teachings of references can be combined only if there is some suggestion or incentive to do so. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984) (emphasis in original, footnotes omitted).

"The critical inquiry is whether 'there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination.'" *Fromson v. Advance Offset Plate, Inc.*, 225 U.S.P.Q. 26, 31 (Fed. Cir. 1985).

1. Claims 1-19 are definite under 35 U.S.C. 112, second paragraph, because the claims particularly point out the subject matter of what Appellants consider their invention.

Claim 1

For the purposes of this issue in this appeal only, claims 1-19 may be treated as standing or falling together. Claim 1 is representative of this group.

Claim 1 recites: "A computer system executing a trade filtering process for identifying suspect trades, the computer system executing processes comprising: a trade monitoring process *** ; a trade comparison process *** ; and a suspect trade filtering process ***.

Claim 1 is directed to a computer system executing computer executable processes of monitoring, comparing and filtering. As such, claim 1 is directed to a machine.

The examiner takes the position that the claims are indefinite because they fall into two different statutory classes. The examiner stated:

> **Claims 1-19 are not sufficiently precise due to the combining of two different statutory classes of invention in a single claim. The preamble the claim refers to a system, but the body of the claim discusses the specifies of a process ("trade monitoring..., trade comparison.. trade filtering..."). A claim is considered indefinite if it does not apprise those skilled in the art of its scope. Amgen, Inc. v. Chugai Pharm. Co., 927 F. 2d 1200, 1217 (Fed. Cir. 1991).**

The examiner's characterization of claims 1-19, as combining two different statutory classes is incorrect, because the preamble of the claim is clearly directed to a machine, namely a computer system that executes computer processes.

The examiner relies on *Amgen, Inc. v. Chugai Pharmaceutical Co., Ltd. Co.*, 927 F. 2d 1200, 1217 (Fed. Cir. 1991). However, there is nothing in that case that supports the examiner's position here.

Appellants' claims 1-19 are neither directed to two distinct classes of invention nor are the claims indefinite. Appellants' claim 1 is reproduced below:

> 1. A computer system executing a trade filtering process for identifying suspect trades, the computer system executing processes comprising:
> a trade monitoring process for monitoring a trade price associated with each trade of a specific stock during a trading session;
> a trade comparison process, responsive to the trade monitoring process, for comparing the trade price of each trade of a specific stock to a known acceptable price for that specific stock to identify which trades are suspect trades; and
> a suspect trade filtering process, responsive to the trade comparison process, for preventing the processing of suspect trades.

Neither in the preamble of claim 1: (A computer system executing a trade filtering process for identifying suspect trades, the computer system executing processes comprising) nor in the body of claim 1 are found any limitations that are method or process limitations as the word "process" is used in 35 U.S.C. §101. That Appellants chose to use the word "process" in the body of claim 1, does not make that claim directed to a process claim (or method claim), because no process steps are recited. Rather, Appellants have claimed a computer system executing processes, which one of skill in the computer arts, would understand as a computer executing software routines to provide the recited functions for the claimed machine, i.e., the computer.

Claim definiteness is not analyzed "in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one

possessing the ordinary level of skill in the pertinent art." *In re Moore*, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971). That is, a claim complies with the second paragraph of Section 112 if, when read in light of the specification, it would have reasonably apprised those skilled in the relevant art of the scope of the invention. *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1385, 231 USPQ 81, 94 (Fed. Cir. 1986).

Claim 1 is directed to an apparatus, namely a computer system. The claimed apparatus executing a trade filtering process that itself includes other processes, as recited in the claim and which correspond to, e.g., software routines executed in the computer system. This would be apparent to a person of ordinary skill in the computer arts and in the financial arts to which these claims are directed. While the examiner may prefer that the Applicants phrase the subject matter differently, it is impermissible for the examiner to reject a claim that is clearly understandable to one of ordinary skill in the art, merely because the examiner prefers other wording.

2. Claims 1-19 are directed to statutory subject matter.

The examiner rejected claims 1-19 under 35 U.S.C. §101 based on the theory that the claims were directed to neither a "process" nor a "machine," but rather embraced or overlapped two different statutory classes of invention set forth in 35 U.S.C. §101.

The examiner stated:

> **35 U.S.C. §101 requires that in order to he patentahle the invention must he a "new and useful process, machine, manufacture or composition of matter or new and useful improvement thereof (emphasis added). Applicant's claims mentioned ahove are intended to emhrace or overlap two different statutory classes of invention as set forth in 35 U.S.C. §101. The claim hegins hy discussing a computer system (ex. Preamhle of claims 1-19), the hody of the claim discusses the specifics of a process (" trade monitoring..., trade comparison .. trade filtering...") (see rejection of claims under 35 U.S.C. §112, second paragraph, for specific details regarding this issue). "A claim of this type is precluded hy express language of 35 U.S.C. §101 which is drafted so as to set forth statutory the statutory classes of invention in the alternative only", *Ex parte Lyell* (17USPQ2d 1548).**
>
> **For examination purpose, the examiner will give these claims their broadest interpretation and treat them as process/method claims.**

The examiner's reliance on *Ex parte Lyell*, 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990) is misplaced. *Lyell* neither support the examiner's conclusion that the claims are indefinite under 35 U.S.C. 112, second paragraph or are non-statutory under 35 U.S.C. §101.

In *Ex parte Lyell* the Board held that: "... Appellants' claim 2 is not sufficiently precise to provide competitors with an accurate determination of the "metes and bounds" of protection involved so that an evaluation of the possibility of infringement may be ascertained with a reasonable degree of certainty, as discussed by the court in *In re Hammack*, supra. (citations omitted)."[18]

The situation in *Lyell* is distinguishable from the present claims, because unlike *Lyell* here the claims are solely directed to a machine "a computer system," whereas in *Lyell* the claims were directed to both a machine, "[A]n automatic transmission tool in the form of a workstand" and to a "method for using same."

In *Lyell*, the body of the claims expressed both machine and method limitations and as the Board found there would be confusion for a competitor to understand what constituted an infringement.[19] However, no such confusion exists in the present claims 1-19, since those claims are only directed to a "computer system."

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[18] **Claim 2 from Lyell is reproduced below:**

2. An automatic transmission tool in the form of a workstand and method for using same comprising:
a support means,
and [sic] internally splined sleeve affixed upright to said support means,
a threaded adjustment bolt threadably engaged through a hole in the bottom of said support means and projecting upward through said support frame into said sleeve,
and further comprising the steps of
1. positioning the output end of an automatic transmission onto said upright sleeve,
2. removing the internal components of said automatic transmission from the casing of said transmission,
3. repairing and replacing said internal components back into said casing, and
4. adjusting said internal components for fit and interference by means of adjusting said upwardly projecting adjustment bolt.

[19] *Ex parte Lyell*, 17 USPQ2d 1548 at 1550-1551

[1] Appellants' independent claim 2, in combining two separate statutory classes of invention in a single claim, in our opinion, would raise serious questions for a manufacturer or seller of a tool like that claimed by appellant regarding infringement. Such a manufacturer or seller would have no indication at the time of making or selling a workstand of the structure set forth in Appellants' claim 2 whether they might later be sued for contributory infringement because a buyer/user of the workstand later performs the Appellants' claimed method of using the workstand. We therefore find that Appellants' claim 2 is not sufficiently precise to provide competitors with an accurate determination of the "metes and bounds" of protection involved so that an evaluation of the possibility of infringement may be ascertained with a reasonable degree of certainty, as discussed by the court in *In re Hammack, supra.* Accordingly, for this reason alone we would sustain the examiner's rejection of Appellants' independent claim 2 and of dependent claims 4, 7, 8 and 10 through 12 under 35 USC 112, second paragraph.

Moreover, unlike *Lyell,* in which the preamble of Lyell's claim 2 recited an "automatic transmission tool in the form of a workstand **and** method for using same," and thus embraced two statutory classes, (emphasis added) the preamble of Appellants' claim 1 only embraces a single statutory class, "a machine," because claim 1 is only directed to a computer system. Appellants also note that the Board in *Lyell* did not consider the body of claim 2 in rendering its decision that Lyell's claim 2 was non-statutory. Unlike the situation in *Lyell's* claim 2, which expressly recites process steps, such recitations are missing in Appellants' claim 1, because the processes recited in claim 1 are not process limitations, but instead are functional limitations on the computer system.

The examiner's argument that applicants have included two statutory classes is fundamentally in error. Claim 1 does not recite "a computer system and a method" or the like, but merely calls for a computer system. A computer system is a tangible real world element. Moreover, claim 1 does not recite steps of a "process" referred to by 35 U.S.C. §101.

Appellants therefore contend that the examiner has erred in construction of the claims where the examiner states that: "**For examination purpose, the examiner will give these claims their broadest interpretation and treat them as process/method claims.**" These claims are neither process nor method claims but instead are machine claims.

Therefore, the interpretation and treatment given to these claims must be as machine claims. Moreover, in view of the examiner's mischaracterization of the claims, the examiner must give the claims an interpretation that is reasonable,[20] and must give patentable weight to all claim limitations.[21]

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[20] The examiner ignores the guidance given by the Federal Circuit in *In re Morris* 127 F.3d 1048, 44 U.S.P.Q.2d 1023, 1027 (Fed. Cir. 1997). According to *Morris* the Office is entitled to construe claim terms using their "broadest reasonable meaning." The court provided guidance on what "reasonable" means:

> Since it would be unreasonable for the PTO to ignore any interpretive guidance afforded by the applicant's written description, either phrasing connotes the same notion: as an initial matter, the PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification. (Emphasis supplied)

[21] See for instance, *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).

3. Claims 1-4, 12, 23-24, 30-31 and 34 are patentable over Vogel et al. (US Patent 6944599) and Kirwin et al. (U.S. PAP 20020029180).

Claims 1, 2, 23, 24 and 30

For the purposes of this appeal only, claims 1, 2, 23, 24 and 30 stand or fall together. Claim 1 is representative of this group of claims.

Appellants' claim 1 is neither described nor suggested by any combination of Vogel with Kirwin. Claim 1 includes the features of … a trade monitoring process …, a trade comparison process … for comparing the trade price of each trade of a specific stock to a known acceptable price for that specific stock to identify which trades are suspect trades and a suspect trade filtering process … for preventing the processing of suspect trades.

In the rejection, the examiner states in part:

> **The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:**
> **1. Determining the scope and contents of the prior art.**
> **2. Ascertaining the differences between the prior art and the claims at issue.**
> **3. Resolving the level of ordinary skill in the pertinent art.**
> **4. Considering objective evidence present in the application indicating obviousness or nonobviousness.**

Appellants contend that the examiner has not applied these guidelines to examination of the claims of the present application. At the outset, these guidelines require the examiner to determine the scope and content of the prior art. It is not clear to Appellants that the examiner has done anything more than conducted a search. Next, the guidelines require the examiner to ascertain the differences between the prior art and the claims. Appellants contend that the examiner has not ascertained the differences between the prior art and the claims. Rather, the examiner has merely made terse citations to unrelated teachings in Vogel and the other references. The guidelines also require that the examiner "resolve the level of ordinary skill in this art." Appellants contend that not only has the examiner failed resolved the level of ordinary skill, Appellants do not see how the examiner is in a position to resolve the level of ordinary skill in this art, because the examiner has neither taken testimony nor deposed any expert witnesses to resolve the level of ordinary skill in the pertinent art. Finally, these guidelines require the

examiner to consider objective evidence present in the application indicating obviousness or non-obviousness of the subject matter of the claims. The examiner has not done either.

Rather, the examiner has merely presented unsupported contentions that Vogel in combination with Kirwin teaches: "... a suspect trade filtering process, responsive to the trade comparison process, for preventing the processing of the suspect trades (col. 3, lines 22-26); a suspect trade resolution process for determining if each the suspect trade is a bad trade (col. 4, lines 54-58)."

Appellants contend that Vogel is directed to a Network-based transaction facility and specifically concerns automated reporting information useful to the facility for a variety of reasons including record keeping, generating statistics, calculating revenue, etc. Vogel specifically is directed to an Internet-based retailer that generates a report listing the items sold during the day and the revenue generated by the sales. Vogel further describes that:

> **For a network-based transaction facility, such as an Internet-based auction facility, and its users, information regarding sales is particularly important for setting fees and providing price guidance to users. Fees may be set based on volume or price of the items sold for individual users. The network-based auction facility may use sales information and statistics to determine how to set fees. The network-based auction facility may further use information generated on a periodic basis to guide sellers in setting prices at which to sell their items or buyers in bidding for items by indicating the average price or price range of the type of product being sold. Thus, there is a need for accurate reporting of information.**

Appellants' claim 1 on the other hand, is directed to different features, namely to a trade filtering process... associated with trades of a specific stock during a trading session.

While Vogel teaches reporting of information, Vogel fails to describe or suggest "... a suspect trade filtering process, responsive to the trade comparison process, for preventing the processing of suspect trades." Vogel does not describe this feature whether at Col. 3, lines 22-25 or elsewhere, as previously argued.[22]

Applicants disagree that Vogel teaches these features. The examiner argues that Vogel at col. 2, lines 27-30 **teaches a computer system executing a trade filtering process for identifying and preventing the processing of suspect trades**. Vogel at col. 2, lines 27-30 discloses:

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[22] Appellant had previously argued, in the prior Appeal Brief, that Vogel did not teach this feature and the examiner now appears to agree because the examiner now relies on Kirwin for this feature.

A method and system for monitoring and automatically reporting irregular activity on a network-based transaction facility are described.

However, neither in this cited sentence nor elsewhere does Vogel teach: "a suspect trade filtering process, responsive to the trade comparison process, for preventing the processing of suspect trades."

Recognizing at least one of the deficiencies in Vogel, the examiner contends "... **Vogel does not explicitly teach a suspect trading filtering process, responsive to the trade comparison process, *for preventing the processing of the suspect trades,* and a specific stock. However, Vogel teaches items. Kirwin teaches a suspect trade filtering process, responsive to the trade comparison process, *for preventing the processing of the suspect trades* (paragraph 0049) (*emphasis in original*).**"[23]

Kirwin does not cure the foregoing deficiencies of Vogel. Kirwin at paragraph 0049 discloses:

> **[0049] Second setting screen 400 also allows the trader to specify limits to prevent accidental entry of a command for a price or size that is outside a reasonably expected range. By selecting box 412, the trader may enable a confirmation alert that prompts the trader for authorization to submit a command for a size larger than the limit (previously selected by the trader or set by the system based on the trader's previous trading history and the traded item's overall market history). By selecting and setting a bid/buy price limit 414 and an offer/sell price limit 416, the trader may also specify a maximum bid/buy price and a minimum offer/sell price. (emphasis added).**

Kirwin merely describes a graphical user interface with an option designed to prevent accidental entry of a command for a size that is outside a reasonably expected range. Kirwin apparently provides a mechanism to allow the system to request authorization for entry of an order for "**...a size larger than the limit (previously selected by the trader or set by the system based on the trader's previous trading history and the traded item's overall market history.**" The examiner however argues that Kirwin teaches "**Kirwin teaches a suspect trade filtering process, responsive to the trade comparison process, for preventing the processing of the suspect trades (paragraph 0049).**" Applicants disagree. Kirwin does not teach to prevent processing of trades. Kirwin merely provides a mechanism to allow a user or the system to ask for authorization for entry of orders that exceed some preset criterion.

However, the claimed feature is directed to preventing processing of "suspect trades" in a trading system. Thus Vogel, whether taken separately or in combination with Kirwin, fails to describe or suggest: "a suspect trade filtering process, responsive to the trade comparison

[23] Examiner's Action page 5.

process, for preventing the processing of suspect trades." Accordingly, the features of Claim 1 … a trade monitoring process …, a trade comparison process … for comparing the trade price of each trade of a specific stock to a known acceptable price for that specific stock to identify which trades are suspect trades and a suspect trade filtering process … for preventing the processing of suspect trades are neither described nor suggested by any combination of Vogel with Kirwin.

Claims 3, 4 and 31

Each of claims 3, 4 and 31 further distinguish over the alleged combination of Vogel with Kirwin.

Claim 3 requires "a known price determination process for determining a last known good price for the specific stock being traded," whereas claim 4 requires: "a price acceptability window process for determining the known acceptable price, wherein the known acceptable price is an acceptable range of prices that span from a specific amount below the last known good price to a specific amount above the last known good price, with trades that have trade prices that do not fall within the acceptable range of prices being considered suspect trades." Claim 31 recites analogous features as claim 4.

In contrast, Vogel teaches: "**If the category is computers, for example, the category may be assigned an irregular activity threshold of $15,000 or another amount that would indicate that the item or the bid is irregular (or outside the normal range).**" [Vogel col. 4, lines 34-37].

Vogel does not suggest much less describe: "a known price determination process for determining a last known good price for the specific stock being traded" as in claim 3 or "…the known acceptable price is an acceptable range of prices that span from a specific amount below the last known good price to a specific amount above the last known good price…" as in claim 4. Rather, Vogel merely sets irregular activity thresholds or an amount that indicates that the price is out of a range. However, each of claims 3 and 4 requires determining a last known good price." Thus, by requiring determining a last known good price, what is set is a variable price (that is, a price that is a function of the "last good price") and which is used in setting the price for what would be considered outside of the acceptable trades. This feature therefore is not suggested by a static threshold or another amount that would indicate that the item or the bid is irregular (or outside the normal range), as taught by Vogel.

Appellant contends that Kirwin does not cure the deficiencies of Vogel. For example, Kirwin discloses at paragraph [0050] (cited by the examiner):

> **[0050] Finally, as shown in second setting screen 400, the trader may select whether to automatically populate a bid/offer with a last trade price or a last bid/offer price using entry verification preferences 418 and 420.**

Kirwin is understood to allow a user to populate a bid/offer price with ***a*** last trade price or ***a*** previous bid/offer price. However, Applicants' claim 3 requires: "a known price determination process for determining a last known good price for the specific stock being traded." Kirwin does not teach this feature whether in [0050] or elsewhere.

The examiner further relies on paragraph [0049] (reproduced above) to teach the features of Appellants' claim 4. However, Kirwin only describes a graphical user interface with an option designed to prevent accidental entry of a command for a size that is outside a reasonably expected range or a mechanism for the system to request authorization. Kirwin does not teach the feature of the known acceptable price is an acceptable range of prices that span from a specific amount below the last known good price to a specific amount above the last known good price…", as called for by Appellants' claim 4.

Claims 12 and 34

For the purposes of this appeal only, claims 12 and 34 stand or fall together. Claim 12 is representative of this group of claims.

Claim 12, limits claim 3, and requires: "… a suspect trade resolution process for determining if each suspect trade is a bad trade."

The examiner contends with respect to claim 12 that Vogel teaches: "**a suspect trade resolution process for determining if each the suspect trade is a bad trade (col. 4, lines 54-58).**"[24]

Appellants disagree. Vogel teaches at the cited passage: "**The irregular flag may be implemented so that the irregular flag may be later changed back to 0, after further investigation. In another embodiment, the irregular flag may be implemented so that it may not be changed back to 0 once it has been changed to 1.**"[25]

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[24] Examiner's Action page 6.
[25] Vogel Col. 4, lines 54-58.

Appellants' claim 12 however is directed to the "trade" not the item, as disclosed by Vogel. So while Vogel teaches: **"Database 23 includes an item table 40, which contains a record for each item being auctioned on the auction facility 10."**[26], nowhere does Vogel teach "a suspect trade resolution process for determining if each suspect trade is a bad trade."

The examiner further relies on paragraph [0049] to teach the features of Applicants' claims 12 and 34. However, Kirwin only describes a graphical user interface with an option designed to prevent accidental entry of a command for a size that is outside a reasonably expected range. Kirwin does not teach the feature of "a suspect trade resolution process."

4. Claims 5-11, 13-18, 20, 22, 25-28, 32 and 35 are patentable over the combination of Vogel et al. (US Patent 6944599) in view of Kirwin, and further in view of Sposito (US Patent Application 2001/0042033).

Claims 5-8

Claims 5-8 further distinguish because Vogel neither describes nor suggests, a last known good price adjustment process for adjusting the last known good price of the specific stock being traded based on any of the criteria, as generally specified in these claims.

For instance, claim 5 requires … a last known good price adjustment process for adjusting the last known good price of the specific stock being traded to be equal to the trade price of the last non-suspect trade. Vogel merely sets either an irregular activity threshold or another amount that would indicate that the item or the bid is irregular e.g., or outside the normal range). However, nowhere does Vogel describe that the threshold or normal range as "related to" or as in claim 5, "equal to", "the trade price of the last non-suspect trade." Kirwin does not cure these deficiencies.

Claim 6, which requires that … the specific amount above the last known good price and the specific amount below the last known good price are fixed dollar amounts, claim 7, which requires … the specific amount above the last known good price and the specific amount below the last known good price are a percentage of the trade price associated with each trade or as in claim 7 wherein the percentage of said last known good price is 15% are not suggested by Vogel,

[26] Vogel Col. 3, lines 33-35.

at least because Vogel does not suggest "a last known good price adjustment process for adjusting the last known good price of the specific stock being traded to be equal to the trade price of the last non-suspect trade." Kirwin does not cure these deficiencies.

The examiner now admits that the combination of Vogel and Kirwin fails to describe these features and relies upon Sposito to teach this feature. However, Sposito likewise fails to teach this feature, since Sposito only teaches at [0030]: "**The owner than chooses the price at which he wishes to sell his security. At this point, the owner of the security chooses the variable points, or how many points below the current price at which he wishes to sell the security. The owner then chooses how often the computer will compute a new sell/stop price.**"

Thus, rather than teaching "a last known good price adjustment process for adjusting the last known good price of the specific stock being traded to be equal to the trade price of the last non-suspect trade," Sposito merely teaches an automated process to change the price of a stop/sell order that a trader may give to a broker, but nowhere does Sposito teach a last known good price adjustment process for adjusting the last known good price of the specific stock being traded to be equal to the trade price of the last non-suspect trade.

Claims 9-11

Claim 9 and claims 10 and 11, which depend from claim 9. The examiner acknowledges that Vogel and/or Kirwin does not explicitly teach a last known good price initiation process for adjusting the last known good price of the specific stock being traded to be equal to a reference value whenever the stock is being traded for the first time in the trading session, as in claim 9 or "the reference value is the trade price of the specific stock being traded.", as in claim 10 or ... the reference value is a previous day's closing price.", as in claim 11.

The examiner contends that Sposito at section [0023] and [0031] teaches the above features. Appellants disagree. Sposito teaches:

> **[0023] In accordance with another aspect of the present invention, a computer readable medium containing instructions for controlling a computer system to perform a method for monitoring and modifying securities having an associated purchase price and an associated last sale price, the method including the steps of setting variable points, setting a time interval, updating the associated last sale price after the time interval, adding the variable points to the associated purchase price, the addition rendering a result, subtracting the result from the associated last sale price, the subtraction rendering an adjustment factor, and creating a sell/stop price if the adjustment factor is greater than zero.**

Sposito describes a method for a monitoring and modifying the prices of securities within a user defined time interval. Sposito does not teach "a last known good price initiation process for adjusting the last known good price of the specific stock being traded to be equal to a reference value whenever the stock is being traded for the first time in the trading session. It is immaterial in Sposito whether or not the stock is being traded for the first time in the trading session. Appellants' claims 9-11 are distinct over Sposito, and allowable over Vogel in view of Kirwin, and further in view of Sposito.

Claims 13, 14 and 15-19

For the purposes of this appeal only, claims 13, 14 and 15-19 stand or fall together. Claim 13 is representative of this group of claims.

Vogel clearly does not suggest claim 13, which requires that the suspect trade resolution process includes a non-suspect price determination process … a suspect trade acceptability window process … and a last known good price adjustment process for adjusting the last known good price of the specific stock being traded to be equal to the trade price of the last non-suspect trade. Vogel does not discuss any adjustments to the "irregular activity threshold" or "the normal range."

The examiner pointed out col. 3, lines 22-32 in Vogel to teach a suspect trade repository process, which is reproduced below:

> **…Data engine server 22 includes an irregular activity monitoring system 27 wbicb performs algoritbms to remove irregular and suspect data items from data representations, as described below witb reference to FIGS. 4-8.**
>
> **The database 23 may, in one embodiment, be implemented as a relational database, and includes a number of tables having entries, or records, tbat are linked by indices and keys. In an alternative embodiment, tbe database 23 may be implemented as collection of objects in an object-oriented database.**

Vogel teaches to remove the irregular and suspect data items from a data representation. In contrast, Appellants' claim 13 calls for…a suspect trade repository process for storing the trade price of said suspect trade…., which is a different mechanism than that described by Vogel. Moreover, the mechanism operates on trades not data items in a report as described by Vogel.

Claim 20

Claim 20 is directed to a method of preventing processing of suspect trades... comparing ... the trade price of each trade of a specific stock to a known acceptable price for that specific stock, with the acceptable price being a range of prices that span from a specific amount below to a specific amount above the last known good price, to determine which trades are suspect trades, which have trade prices that fall outside the acceptable range of prices, preventing processing of the suspect trades... adjusting the last known good price of the specific stock being traded to be equal to the trade price of the last non-suspect trade. No combination of Vogel, Kirwin with Sposito teach these features.

Vogel and Kirwin only teach to determine if the price based value is greater than a predetermined price based value. Vogel does not teach determining if the price of the trade falls outside of a window price based value. Kirwin only teaches a graphical user interface with options to prevent invalid order entries.

Sposito only teaches:

> **The result is subtracted from the last sale price, giving the adjustment factor. If the adjustment factor is greater than zero, then the process creates a new sell/stop by subtracting the adjustment factor from the last sale price. If the adjustment factor is less than, or equal to, zero, the process does nothing. If a new sell/stop number is created, the process will inform the owner of the revised sell/stop number.**

Hence no combination of these references either describes or suggests, e.g., to determine which trades are suspect trades, which have trade prices that fall outside the acceptable range of prices, preventing processing of the suspect trades... .

Claim 21[27]

Claim 21, which calls for "a suspect trade resolution process for determining if each said suspect trade is a bad trade.", is allowable over Vogel/Kirwin, for the reasons discussed in conjunction with claim 12 above and for the reasons discussed in conjunction with claim 20. Moreover, Sposito is not seen as curing any of the deficiencies in Vogel/Kirwin. Indeed, the

[27] The examiner appears to reject this claim on page 10 although it is not stated in the first paragraph of the rejection on page 6.

examiner does not rely on Sposito for any teachings pertaining to this claim, rather contending that the claim was taught by Vogel/Kirwin.

Claim 22

Claim 22 limits the method of claim 21 and recites features of the suspect trade resolution process. According to claim 22, the suspect trade resolution process includes "a suspect trade repository process …; a non-suspect price determination process ….; a suspect trade acceptability window process ….; and a last known good price adjustment process for adjusting said last known good price of said specific stock being traded to be equal to said trade price of the last non-suspect trade.

The examiner acknowledges that Vogel/Kirwin does not explicitly teach "a last known good price adjustment process for adjusting said last known good price of said specific stock being traded to be equal to said trade price of the last non-suspect trade.", and relies on Sposito for this teaching. Specifically the examiner states:

> **However, Sposito teaches the steps wherein the acceptable price determination process includes: a last known good price adjustment process for adjusting the last known good price of the specific stock being traded to be equal to the trade price of the last non-suspect trade (section [0030]); …"**
>
> **Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Vogel to include the steps disclosed above as taught by Sposito so that acceptable trade prices can be automatically adjusted and updated without any need for human input thereby creating a new range or boundaries of acceptable trade prices for items as the trade progresses.**

Appellants disagree. According to Sposito at the cited passage, Sposito teaches to compute new "sell/stop price." However, this is not at all related to "a last known good price adjustment process for adjusting said last known good price of said specific stock being traded to be equal to said trade price of the last non-suspect trade," but is merely a stop price at which point a trade will not take place. The stop price however is neither the last know good price of the specific stock nor the trade price of the last non-suspect trade, but rather is merely a price that is: "the price at which he wishes to sell his security.", that is modified based on "the variable

points," chosen by the owner of the security "how many points below the current price at which he wishes to sell the security."[28]

Accordingly, because these references neither describe nor suggest the claimed feature, and the examiner has not provided any argument as to how either reference could be modified to teach the claimed feature, the combination fails to suggest the claimed invention as set forth in this claim.

The examiner also argues that it is suggested to modify Vogel/Kirwin with Sposito "**so that acceptable trade prices can be automatically adjusted and updated without any need for human input thereby creating a new range or boundaries of acceptable trade prices for items as the trade progresses.**" However, with respect to Vogel this would not be suggested, because Vogel is concerned with determining if an item exceeds a threshold price and providing a range or boundaries of acceptable trade prices would not assist in the purpose to remove from reports those items that have unacceptable prices. On the other hand, with respect to Sposito, the examiner has not provided any motivation as to why the sell/stop price taught by Sposito would benefit from the reporting mechanism of Vogel. With respect to Kirwin, Kirwin merely provides a mechanism to warn of entry of orders that exceed a certain price.

Claims 25 and 27

For the purposes of this appeal only, claims 25 and 27 stand or fall together. Claim 25 is representative of this group of claims.

Claim 25, which limits claim 24 and includes ... determining a last known good price for the specific stock being traded; ... and adjusting the last known good price of the specific stock being traded to be equal to the trade price of the last non-suspect trade.", is not taught by any combination of Vogel/Kirwin and Sposito, for reasons discussed in claim 22 and claim 20.

Claim 26

Claim 26 recites that: "adjusting the last known good price of the specific stock being traded to be equal to a reference value whenever the stock is being traded for the first time in the trading session," is not disclosed by the cited references. The examiner acknowledges that Vogel

[28] Sposito paragraph 30.

does not teach this and relies on Sposito, specifically "a last known good price initiation process for adjusting the last known good price of the specific stock being traded to be equal to a reference value whenever the stock is being traded for the first time in the trading session (section [0023])."

Sposito teaches:

> **[0023] In accordance with another aspect of the present invention, a computer readable medium containing instructions for controlling a computer system to perform a method for monitoring and modifying securities having an associated purchase price and an associated last sale price, the method including the steps of setting variable points, setting a time interval, updating the associated last sale price after the time interval, adding the variable points to the associated purchase price, the addition rendering a result, subtracting the result from the associated last sale price, the subtraction rendering an adjustment factor, and creating a sell/stop price if the adjustment factor is greater than zero.**

However, these teachings are directed to creating a sell/stop price based on the adjustment factor, and does not suggest: "adjusting the last known good price of the specific stock being traded to be equal to a reference value whenever the stock is being traded for the first time in the trading session."

Claim 28

Claim 28 limits claim 27 and is directed to features for determining if each suspect trade is a bad trade. Claim 28 includes the features of storing the trade price of the suspect trade, determining the trade price of at least a first non-suspect trade of the specific stock to occur after the suspect trade and determining a suspect acceptability price range … "the suspect trade is considered a non-suspect trade if the trade price of the at least a first non-suspect trade falls within the suspect acceptability price range … ."

The combination of Vogel and Kirwin with Sposito fails to suggest at least these features. The examiner argues that Vogel teaches: "a non-suspect price determination process for determining the trade price of at least a first non-suspect trade of the specific item to occur after the suspect trade (col. 5, lines 38-67; col. 7, lines 1-9; Figs. 4-8)."

Appellants disagree. Vogel does not teach these features, but rather teaches:

> **…the irregular activity monitoring system 27 checks to see if a price-based value of Item (n) of a set of items has a value greater than a predetermined value. As**

> **discussed above, the set of items may be items from the same category which had transactions established, by the ending of an auction, for example, at the same time. The predetermined value would depend on which price-based value is being examined, the currency, the geographic area, the category of the item or any other parameter that may indicate different threshold values to establish irregular activity.**

Thus, rather than teaching the claim limitation, Vogel teaches to compare to "a set of items" not to "trades" for the individual security, whereas at Col. 7, lines 1-9 Vogel merely discusses the irregular_item flag.

Claims 29[29]

Claim 29 further distinguishes over the combination of references, because no combination of these references suggests the features of "... monitoring a trade volume associated with each trade, examining the trade volume and trade price of each trade and discarding trades whose trade volume is negative, whose trade volume is zero, whose trade price is negative, and whose trade price is zero." The examiner admits that no combination of these references suggest these features and thus relies on official notice. Specifically, the examiner states:

> **Re claims 19, 29 and 33: Vogel and Sposito do not explicitly teach a validity filter process for monitoring and examining a trade volume and a trade price wherein the validity filter process discards trades whose the trade volume is negative, whose the trade volume is zero, whose the trade price is negative, and whose the trade price is zero.**
>
> **Official notice is hereby taken that it is old and well known in the electronic trading systems to remove trades whose trade volume and trade price do not meet certain conditions.**
>
> **Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the aforementioned steps to remove trades that are not desirable for the trading activity thereby making the system more efficient.**

Appellants had challenged[30] the examiner's contentions that it is well known to "**remove trades whose trade volume and trade price do not meet certain conditions,**" [31] The examiner has not furnished any proof of this administrative notice, even though he had elected to re-open prosecution and apparently conducted a new search.

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[29] The examiner appears to reject this claim on page 10 although it is not stated in the first paragraph of the rejection on page 6.
[30] See prior Appeal Brief.
[31] Office Action of Oct. 18, 2007, page 11.

Assuming *arguendo* that it is well known to: "**remove trades whose trade volume and trade price do not meet certain conditions,**"[32] the examiner has not provided any reasonable basis why the combination of Vogel, Kirwin and Sposito would benefit from this teaching.

Recall that Vogel, the base reference, deals with items not trades, and the items, as used in Vogel, do not use the volumes of the items for classification. While Vogel mentions that: "**Fees may be set based on volume or price of the items sold for individual users.**"[33], Vogel does not does not use volume as a criteria for classifying items as irregular. Therefore, combination of official notice with Vogel would not appear to be obvious to one of ordinary skill in the art, because "to remove trades that are not desirable for the trading activity" would not make the system of the combination of Vogel with official notice "more efficient." Kirwin only describes a graphical user interface with an option designed to prevent accidental entry of a command for a size that is outside a reasonably expected range or a mechanism for the system to request authorization.

Sposito, on the other hand, deals with a sell/stop order and already has volume specified by the user and any combination of office notice with Sposito would serve no further purpose at least because Sposito is not specifically directed to filtering of trades or filtering of trade data as in Vogel reporting mechanism or Kirwin's mechanism to prevent accidental entry.

Accordingly, Appellants contend that it is not suggested to combine official notice with either Vogel, Kirwin or Sposito or the combination of Vogel/Kirwin and Sposito.

Claim 32

Claim 32, which limits claim 30 and requires instructions to "adjust the last known good price of the specific stock being traded to be equal to the trade price of the last non-suspect trade," is allowable for reasons analogous to those in claim 22 and base claim 30.

Claim 33[34]

Claim 33, which limits claim 30 and recites instructions to … monitor a trade volume associated with each trade and examine the trade volume and the trade price of each the trade to

[32] Office Action of Oct. 18, 2007, page 11.
[33] Vogel Col. 1, line 36.
[34] The examiner appears to reject this claim on page 10 although it is not stated in the first paragraph of the rejection on page 6.

discard those trades whose trade volume is negative, whose trade volume is zero, whose trade price is negative, and whose trade price is zero," is not taught by any combination of Vogel, Kirwin and Sposito, for reasons discussed in claim 22 and base claim 30.

Claim 35

Claim 35, which limits claim 30 and features particular instructions to determine a bad trade, is allowable for reasons analogous to those in claim 13 and base claim 30.

Conclusion

Appellants submit, therefore, that Claims 1-35 are allowable over the cited art, are directed to statutory subject matter and are definite. Therefore, the Examiner erred in rejecting Appellants' claims and should be reversed.

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Appendix of Claims

1. A computer system executing a trade filtering process for identifying suspect trades, the computer system executing processes comprising:

a trade monitoring process for monitoring a trade price associated with each trade of a specific stock during a trading session;

a trade comparison process, responsive to the trade monitoring process, for comparing the trade price of each trade of a specific stock to a known acceptable price for that specific stock to identify which trades are suspect trades; and

a suspect trade filtering process, responsive to the trade comparison process, for preventing the processing of suspect trades.

2. The computer system of claim 1 further comprising an acceptable price determination process for determining the value of the known acceptable price.

3. The computer system of claim 2 wherein the acceptable price determination process includes:

a known price determination process for determining a last known good price for the specific stock being traded.

4. The computer system of claim 3 wherein the acceptable price determination process includes:

a price acceptability window process for determining the known acceptable price, wherein the known acceptable price is an acceptable range of prices that span from a specific amount below the last known good price to a specific amount above the last known good price, with trades that have trade prices that do not fall within the acceptable range of prices being considered suspect trades.

5. The computer system of claim 4 wherein said acceptable price determination process includes:

a last known good price adjustment process for adjusting the last known good price of the specific stock being traded to be equal to the trade price of the last non-suspect trade.

6. The computer system of claim 4 wherein the specific amount above the last known good price and the specific amount below the last known good price are fixed dollar amounts.

7. The computer system of claim 4 wherein the specific amount above the last known good price and the specific amount below the last known good price are a percentage of the trade price associated with each trade.

8. The computer system of claim 7 wherein the percentage of said last known good price is 15%.

9. The computer system of claim 3 further comprising a last known good price initiation process for adjusting the last known good price of the specific stock being traded to be equal to a reference value whenever the stock is being traded for the first time in the trading session.

10. The computer system of claim 9 wherein the reference value is the trade price of the specific stock being traded.

11. The computer system of claim 9 wherein the reference value is a previous day's closing price.

12. The computer system of claim 3 further comprising a suspect trade resolution process for determining if each suspect trade is a bad trade.

13. The computer system of claim 12 wherein the suspect trade resolution process includes:

a suspect trade repository process for storing the trade price of said suspect trade;

a non-suspect price determination process for determining the trade price of at least a first non-suspect trade of the specific stock to occur after the suspect trade;

a suspect trade acceptability window process for determining a suspect acceptability price range, wherein the suspect acceptability price range spans from a specific amount below the trade price of the suspect trade to a specific amount above the trade price of the suspect trade, wherein the suspect trade is considered a non-suspect trade if the trade price of the at least a first non-suspect trade falls within the suspect acceptability price range; and

a last known good price adjustment process for adjusting the last known good price of the specific stock being traded to be equal to the trade price of the last non-suspect trade.

14. The computer system of claim 13 wherein the at least a first non-suspect trade is one trade.

15. The computer system of claim 13 wherein the at least a first non-suspect trade is three consecutive trades.

16. The computer system of claim 13 wherein the specific amount above said trade price of the suspect trade and said specific amount below said trade price of the suspect trade are fixed dollar amounts.

17. The computer system of claim 13 wherein the specific amount above the trade price of the suspect trade and the specific amount below the trade price of the suspect trade are a percentage of the trade price of the suspect trade.

18. The computer system of claim 17 wherein said percentage of the trade price of the suspect trade is 5%.

19. The computer system of claim 1 wherein the trade monitoring process monitors a trade volume associated with each trade, the trade filtering process further comprising:

a validity filter process for examining the trade volume and the trade price of each the trade, and for discarding trades whose trade volume is negative, whose trade volume is zero, whose trade price is negative, and whose trade price is zero.

20. A method of preventing processing of suspect trades, the method executed in a computer system and the method comprising:

monitoring a trade price associated with each trade of a specific stock during a trading session;

comparing in the computer system the trade price of each trade of a specific stock to a known acceptable price for that specific stock, with the acceptable price being a range of prices that span from a specific amount below to a specific amount above the last known good price, to determine which trades are suspect trades, which have trade prices that fall outside the acceptable range of prices;

preventing processing of the suspect trades;

determining a last known good price for a specific stock being traded; and

adjusting the last known good price of the specific stock being traded to be equal to the trade price of the last non-suspect trade.

21. The method of claim 20 further comprising a suspect trade resolution process for determining if each said suspect trade is a bad trade.

22. The method of claim 21 wherein said suspect trade resolution process includes:

a suspect trade repository process for storing said trade price of said suspect trade;

a non-suspect price determination process for determining the trade price of at least a first non-suspect trade of the specific stock to occur after said suspect trade;

a suspect trade acceptability window process for determining a suspect acceptability price range, wherein said suspect acceptability price range spans from a specific amount below said trade price of said suspect trade to a specific amount above said trade price of said suspect trade, wherein said suspect trade is considered a non-suspect trade if the trade price of said at least a first non-suspect trade falls within said suspect acceptability price range; and

a last known good price adjustment process for adjusting said last known good price of said specific stock being traded to be equal to said trade price of the last non-suspect trade.

23. A method for preventing the processing of suspect trades, the method comprising:

monitoring a trade price associated with each trade of a specific stock during a trading session;

comparing the trade price of each trade of a specific stock to a known acceptable price for that specific stock to determine which trades are suspect trades; and

preventing the processing of the suspect trades.

24. The trade filtering method of claim 23 further comprising determining the value of the known acceptable price.

25. The trade filtering method of claim 24 wherein determining the value of the known acceptable price includes:

determining a last known good price for the specific stock being traded;

determining the known acceptable price, wherein the known acceptable price is an acceptable range of prices which span from a specific amount below the last known good price to a amount above the last known good price, with those trades which have trade prices that do not fall within the acceptable range of prices being considered suspect trades; and

adjusting the last known good price of the specific stock being traded to be equal to the trade price of the last non-suspect trade.

26. The trade filtering method of claim 25 further comprising adjusting the last known good price of the specific stock being traded to be equal to a reference value whenever the stock is being traded for the first time in the trading session.

27. The trade filtering method of claim 25 further comprising determining if each suspect trade is a bad trade.

28. The trade filtering method of claim 27 wherein determining if each suspect trade is a bad trade includes:

storing the trade price of the suspect trade;

determining the trade price of at least a first non-suspect trade of the specific stock to occur after the suspect trade;

determining a suspect acceptability price range, wherein the suspect acceptability price range spans from a specific amount below the trade price of the suspect trade to a specific amount above the trade price of the suspect trade, wherein the suspect trade is considered a non-suspect trade if the trade price of the at least a first non-suspect trade falls within the suspect acceptability price range; and

adjusting the last known good price of the specific stock being traded to be equal to the trade price of the last non-suspect trade.

29. The trade filtering method of claim 23 further comprising:

monitoring a trade volume associated with each trade;

examining the trade volume and trade price of each trade; and

discarding trades whose trade volume is negative, whose trade volume is zero, whose trade price is negative, and whose trade price is zero.

30. A computer program product residing on a computer readable medium having a plurality of instructions stored thereon which, when executed by the processor, cause that processor to:

monitor a trade price associated with each trade of a specific stock during a trading session;

compare the trade price of each trade of a specific stock to a known acceptable price for that specific stock to determine which trades are suspect trades; and

prevent the processing of the suspect trades.

31. The computer program product of claim 30 further comprising instructions to:

determine an acceptable range of prices that span from a specific amount below the last known good price to a specific amount above the last known good price, with trades that have trade prices that do not fall within the acceptable range of prices being considered suspect trades.

32. The computer program product of claim 30 further comprising instructions to:

adjust the last known good price of the specific stock being traded to be equal to the trade price of the last non-suspect trade.

33. The computer program product of claim 30 further comprising instructions to:

monitor a trade volume associated with each trade; and

examine the trade volume and the trade price of each the trade to discard those trades whose trade volume is negative, whose trade volume is zero, whose trade price is negative, and whose trade price is zero.

34. The computer program product of claim 30 further comprising instructions to:

determine if each suspect trade is a bad trade.

35. The computer program product of claim 30 wherein instructions to determine a bad trade, further comprises instructions to:

determine the trade price of a first non-suspect trade of the specific stock to occur after the suspect trade;

determine a suspect acceptability price range that spans from a specific amount below the trade price of the suspect trade to a specific amount above the trade price of the suspect trade, with the suspect trade being a non-suspect trade if the trade price of the first non-suspect trade falls within the suspect acceptability price range; and

adjust the last known good price of the specific stock being traded to be equal to the trade price of the last non-suspect trade.

Claims 36-41 are canceled

Evidence Appendix

NONE

Related Proceedings Appendix

NONE